Rewritten Copy of Claims

1. A park brake cable system comprising:

a brake actuation lever;

a connector clip having a first end and a second end, and including a shear member having a shear failure force, positioned between the first and second ends of said connector clip;

a brake assembly;

a front cable strand having a first and second ends, the first end attached to the brake actuation lever, and the second end engaging the shear member on the connector clip;

a first rear cable strand having a first end and a second end, the first end attached to the second end of the connector clip and the second end attached to the brake assembly; and

tensioner means attached in a tension force transmitting relationship with the front cable strand and the first rear cable strand, creating a continuous connection from the brake actuation lever to the brake assembly;

wherein applying tension to the front and first rear cable strands by the tensioner means creates at least the shear failure force to cause the second end of the front cable strand to break the shear member and move to the first end of the connector clip, and maintain the continuous connection from the brake actuation lever to the brake assembly.

2. The park brake cable system as defined in claim 1 wherein actuating said tensioner means develops a first tension level prior to breaking the shear member, and a second residual tension level after breaking the shear member.

22. A park brake cable system as defined in claim 1 wherein said connector clip includes a main body having an interior cavity, and open first and second ends, and wherein at least a portion of the shear member extends across a portion of the interior cavity.

23. A park brake cable system as defined in claim 22 wherein said at least a portion of the shear member is a tab.

24. A park brake cable system as defined in claim 23 wherein the tab includes a stress riser.

25. A park brake cable system as defined in claim 23 wherein said tab has a front face and a rear face, the front face (i) facing said first end of the first rear cable strand and (ii) having a stress riser disposed thereon, and the rear face being opposite said front face.

26. A park brake cable system as defined in claim 23 wherein said tab has a front face and a rear face, the rear face (i) facing away from said first end of the first rear cable strand and (ii) having a stress riser disposed thereon, and the front face being opposite said rear face.

27. A park brake cable system as defined in claim 22 wherein:

said shear member has a partially cylindrical body and said at least a portion of the shear member defines a tab extending orthogonally inwardly;

said main body of the connector clip defines an outer surface and includes an aperture formed through said main body from said outer surface to said interior cavity; and

said partially cylindrical body of the shear member mounts on said outer surface and said tab extends through said aperture to extend across at least a portion of the interior cavity.

28. A park brake cable system as defined in claim 22 wherein:

the shear member and the connector clip are integrally formed;

said main body is a generally cylindrical body defining a bore therethrough and having an interior side wall; and

said at least a portion of the shear member comprises a shear disk, the shear disk being attached to said interior side wall and extending across said bore.

29. A park brake cable system as defined in claim 28 wherein said shear disk is attached at selected locations along said side wall.

30. A park brake cable system as defined in claim 28 wherein said shear disk is attached continuously along said side wall.

31. A park brake cable system as defined in claim 28 wherein said shear disk extends radially across said interior cavity.

32. A park brake cable system as defined in claim 28 wherein said shear member defines a stress riser therein.

33. A park brake cable system as defined in claim 28 wherein:

said shear disk has a front face and a rear face; and

said front face defines a stress riser therein.

34. A park brake cable system as defined in claim 28 wherein:

said shear disk has a front face and a rear face; and

said rear face defines a stress riser therein.

35. A park brake cable system as defined in claim 1 wherein said connector clip comprises an elongated body defining an interior cavity and having first and second ends.

36. The park brake cable system of claim 35, wherein the first and second ends of the connector clip are open.

37. The park brake cable system of claim 35, wherein at least a portion of the shear member extends into interior cavity.

38. The park brake cable system of claim 37, wherein the portion of the shear member comprises a tab.

39. The park brake cable system of claim 36, wherein the second end of the front cable strand and the first end of the first rear cable strand have beads attached thereto, and wherein a width of each bead is greater than a diameter of the respective front or first rear cable strand to which the bead is attached.

40. The park brake cable system of claim 39, wherein the elongated body includes a slot, the slot (i) extending longitudinally from the first end to the second end of the elongated body, (ii) having a first width proximate either of the first and second ends that is less than the width of the beads, and (iii) having a second width proximate a central portion of the elongated body that is greater than the width of the beads.

41. The park brake cable system of claim 39, wherein the elongated body is crimped inwardly proximate at least one of the first and second ends to form an abutment surface against which one of the beads is engaged.

42. The park brake assembly of claim 2, wherein the first tension level ranges from 160 to 250 pounds.

43. The park brake assembly of claim 2, wherein the second residual tension level ranges from 90 to 130 pounds.

44. The park brake assembly of claim 1, wherein the distance the second end of the front cable strand moves ranges from 13 to 25 millimeters.

45. A park brake cable system comprising:

a brake actuation lever;

a connector clip having a first connector clip end and a second connector end, and including a shear member having a shear failure force, positioned between the first and second connector ends;

a brake assembly;

a front cable strand having a first and second front cable ends, the first front cable end being attached to the brake actuation lever, and the second front cable end engaging one of the shear member and the first connector clip end;

a first rear cable strand having a first rear cable end and a second rear cable end, the first rear cable end attached to one of the shear member and the second connector clip end, only one of the second front cable end and the first rear cable end being attached to the shear member; and

a tensioner means attached in a tension force transmitting relationship with the front cable strand and the first rear cable strand, creating a continuous connection from the brake actuation lever to the brake assembly;

wherein applying tension to the front and first rear cable strands by the tensioner means creates at least the shear failure force to cause the one of the second front cable end and the first rear cable end attached to the shear member (i) to break the shear member and (ii) move to one of the first and second connector ends respectively, maintaining a continuous connection from the brake actuation lever to the brake assembly.

46. A park brake cable system as defined in claim 45 wherein said connector clip includes a main body having an interior cavity, and open first and second connector ends, and wherein at least a portion of the shear member extends across a portion of the interior cavity.

47. A park brake cable system as defined in claim 46 wherein said at least a portion of the shear member is a tab.

48. A park brake cable system as defined in claim 47 wherein the tab includes a stress riser.

49. A park brake cable system as defined in claim 47 wherein said tab has a front tab face and a rear tab face, the front tab face (i) facing said first rear cable end and (ii) having a stress riser disposed thereon, and the rear tab face being opposite said front tab face.

50. A park brake cable system as defined in claim 46 wherein:

said shear member has a partially cylindrical body and said at least a portion of the shear member defines a tab extending orthogonally inwardly;

said main body of the connector clip defines an outer surface and includes an aperture formed through said main body from said outer surface to said interior cavity; and

said partially cylindrical body of the shear member mounts on said outer surface and said tab extends through said aperture to extend across at least a portion of the interior cavity.

51. A park brake cable system as defined in claim 46 wherein:

the shear member and the connector clip are integrally formed;

said main body is a generally cylindrical body defining a bore therethrough and having an interior side wall; and

said at least a portion of the shear member comprises a shear disk, the shear disk being attached to said interior side wall and extending across said bore.

52. A park brake cable as defined in claim 51, wherein said shear disk is attached at selected locations along said side wall.

53. A park brake cable as defined in claim 52, wherein said shear disk is attached continuously along said side wall.

54. A park brake cable as defined in claim 51, wherein said shear disk defines a stress riser therein.

55. A park brake cable system as defined in claim 45 wherein said connector clip comprises an elongated body defining an interior cavity.

56. The park brake cable system as defined in claim 45 wherein actuating said tensioner means develops a first tension level prior to breaking the shear member, and a second residual tension level after breaking the shear member.

57. The park brake assembly of claim 56, wherein the first tension level ranges from 160 to 250 pounds.

58. The park brake assembly of claim 56, wherein the second residual tension level ranges from 90 to 130 pounds.

59. The park brake assembly of claim 45, wherein the one of the second front cable end and the first rear cable end that

is attached to the shear member moves a distance ranging from 13 to 25 millimeters.

60. The park brake cable system of claim 45, wherein the park brake cable system further comprises:

an equalizer structure; and

a second rear cable strand, the second rear cable stand having first and second ends;

wherein the brake assembly includes (i) a rear left brake, and (ii) a rear right brake, the first end of the second rear cable strand being attached to the equalizer, and the second end of the second rear cable strand being attached to one of the rear left brake and the rear right brake, the second rear cable end of the first rear cable strand being attached to the other of the rear left brake and the rear right brake.

61. The cable system as defined in claim 60 wherein said tensioner means is positioned on said equalizer

62. The cable system as defined in claim 60 wherein said tensioner means is positioned on said brake actuation lever.

63. A park brake cable system comprising:

a brake actuation lever;

a connector clip having a first end and a second end, and including a shear member having a shear failure force, positioned between the first and second ends of said connector clip;

a brake assembly;

a front cable strand having a first and second ends, the first end attached to the brake actuation lever, and the second end engaging the first end on the connector clip;

a first rear cable strand having a first end and a second end, the first end attached to the shear member of the connector clip and the second end attached to the brake assembly; and

tensioner means attached in a tension force transmitting relationship with the front cable strand and the first rear cable strand, creating a continuous connection from the brake actuation lever to the brake assembly;

wherein applying tension to the front and first rear cable strands by the tensioner means creates at least the shear failure force to cause the first end of the first rear cable strand to break the shear member and move to the second end of the connector clip, and maintain the continuous connection from the brake actuation lever to the brake assembly.

64. A park brake cable system as defined in claim 63 wherein said connector clip includes a main body having an interior cavity, and open first and second ends, and wherein at least a portion of the shear member extends across a portion of the interior cavity.

65. A park brake cable system as defined in claim 64 wherein said at least a portion of the shear member is a tab.

66. A park brake cable system as defined in claim 65 wherein the tab includes a stress riser.

67. A park brake cable system as defined in claim 65 wherein said tab has a front face and a rear face, the front face (i) facing said first end of the first rear cable strand and (ii) having a stress riser disposed thereon, and the rear face being opposite said front face.

68. A park brake cable system as defined in claim 64 wherein:

said shear member has a partially cylindrical body and said at least a portion of the shear member defines a tab extending orthogonally inwardly;

said main body of the connector clip defines an outer surface and includes an aperture formed through said main body from said outer surface to said interior cavity; and

said partially cylindrical body of the shear member mounts on said outer surface and said tab extends through said aperture to extend across at least a portion of the interior cavity.

69. A park brake cable system as defined in claim 64 wherein:

the shear member and the connector clip are integrally formed;

said main body is a generally cylindrical body defining a bore therethrough and having an interior side wall; and

said at least a portion of the shear member comprises a shear disk, the shear disk being attached to said interior side wall and extending across said bore.

70. A park brake cable system as defined in claim 69 wherein said shear disk is attached at selected locations along said side wall.

71. A park brake cable system as defined in claim 69 wherein said shear disk is attached continuously along said side wall.

72. A park brake cable system as defined in claim 69 wherein said shear member defines a stress riser therein.

73. A park brake cable system as defined in claim 63 wherein said connector clip comprises an elongated body defining an interior cavity.

74. The park brake cable system as defined in claim 63 wherein actuating said tensioner means develops a first tension level prior to breaking the shear member, and a second residual tension level after breaking the shear member.

75. The park brake assembly of claim 74, wherein the first tension level ranges from 160 to 250 pounds.

76. The park brake assembly of claim 74, wherein the second residual tension level ranges from 90 to 130 pounds.

77. The park brake assembly of claim 63, wherein the distance the first end of the of the first rear cable strand moves ranges from 13 to 25 millimeters.

78. The park brake cable system of claim 63, wherein the park brake cable system further comprises:

an equalizer structure; and

a second rear cable strand, the second rear cable stand having first and second ends;

wherein the brake assembly includes (i) a rear left brake, and (ii) a rear right brake, the first end of the second rear cable strand being attached to the equalizer, and the second end of the second rear cable strand being attached to one of the rear left brake and the rear right brake, the second rear cable end of the first rear cable strand being attached to the other of the rear left brake and the rear right brake.

79. The cable system as defined in claim 78 wherein said tensioner means is positioned on said equalizer.

80. The cable system as defined in claim 78 wherein said tensioner means is positioned on said brake actuation lever.